From: "Coffey, Scott" < CoffeySE@cdmsmith.com>
To: "Sheldrake, Sean" < sheldrake.sean@epa.gov>

CC: "Zhen, Davis" <Zhen.Davis@epa.gov>

"Fox, Mary" <FoxML@cdmsmith.com>

younghs@cdmsmith.com

Date: 4/5/2018 2:49:28 PM

Subject: RE: DRAFT PH Oversight Splits Sampling QAPP (deliberative)

Hi Sean.

Just checking in to see if Jennifer Crawford has provided any comments on our oversight split sampling QAPP.

Jennifer stated they needed a 3 week TOT, which puts it around April 9<sup>th</sup>, but now that the Pre-RD Group bumped up their sediment sampling, we'll want to address EPA comments and get the Split QAPP finalized so we can take some oversight splits of surface sediment before that ends roughly 4 to 5 weeks from April 9<sup>th</sup>.

## Scott

From: Sheldrake, Sean [mailto:sheldrake.sean@epa.gov]

Sent: Monday, March 19, 2018 8:54 AM

To: Crawford, Jennifer < Crawford. Jennifer@epa.gov>

Cc: Matheny, Don <Matheny.Don@epa.gov>; Coffey, Scott <CoffeySE@cdmsmith.com>; Zhen, Davis

<Zhen.Davis@epa.gov>

Subject: RE: DRAFT PH Oversight Splits Sampling QAPP (deliberative)

Ok, thanks Jennifer. S

Sean Sheldrake RPM, Unit Diver Officer U.S. Environmental Protection Agency 1200 Sixth Ave, Suite 900, M/S DOC-01 Seattle, WA 98101 206.553.1220 desk 206.225.6528 cell

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Portland Harbor: https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=1002155

From: Crawford, Jennifer

Sent: Monday, March 19, 2018 7:13 AM

To: Sheldrake, Sean <sheldrake.sean@epa.gov> Cc: Matheny, Don <Matheny.Don@epa.gov>

Subject: FW: DRAFT PH Oversight Splits Sampling QAPP (deliberative)

## Hi Sean,

We have received the Splits QAPP for review and it is in the queue for Don and I to review (QA/RSCC). The lab will also be reviewing with comments through QA. Unfortunately it is quite busy right now so will be towards the end of our standard 3 week TAT.

I had been providing info to CDM Smith for preparation of the QAPP but haven't seen any actual documents until Friday.

Please let me know if you have any questions.

Thanks!
Jennifer

## Jennifer Crawford

USEPA R10 Chemist - QA/RSCC/CLP COR Alt.

1200 Sixth Avenue Suite 900, OERA-140, Seattle, WA 98101 crawford.jennifer@epa.gov / (206) 553-6261

From: Matheny, Don

Sent: Friday, March 16, 2018 1:43 PM

To: Crawford, Jennifer < Crawford. Jennifer@epa.gov>

Subject: FW: DRAFT PH Oversight Splits Sampling QAPP (deliberative)

From: Sheldrake, Sean

Sent: Friday, March 16, 2018 11:27 AM

To: Scott Coffey <coffeyse@cdmsmith.com>; Zhen, Davis <Zhen.Davis@epa.gov>; Matheny, Don

<Matheny.Don@epa.gov>

Cc: Fox, Mary <FoxML@cdmsmith.com>; Young, Howard S. <younghs@cdmsmith.com>; Gustavson, Karl

<Gustavson.Karl@epa.gov>

Subject: RE: DRAFT PH Oversight Splits Sampling QAPP (deliberative)

Hello Don, QAPP team review if you please on the attached designed towards split sampling of the baseline effort at Portland Harbor. (sounds like we ve already been talking to Jennifer, but just want to verify you all have reviewed the draft final and provided comments). Let us know if you have any questions.

Karl, let us know if you have concerns about the RPD level of effort vs spending a lot more money for a more statistically robust split sampling approach, and we ll adjust accordingly).

Thank you.

S

Sean Sheldrake RPM, Unit Diver Officer U.S. Environmental Protection Agency 1200 Sixth Ave, Suite 900, M/S DOC-01 Seattle, WA 98101 206.553.1220 desk 206.225.6528 cell

https://www.epa.gov/diving

https://www.facebook.com/EPADivers

Portland Harbor: https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=1002155

From: Coffey, Scott [mailto:CoffeySE@cdmsmith.com]

Sent: Wednesday, March 14, 2018 10:51 AM

To: Sheldrake, Sean <sheldrake.sean@epa.gov>; Zhen, Davis <Zhen.Davis@epa.gov> Cc: Fox, Mary <FoxML@cdmsmith.com>; Young, Howard S. <younghs@cdmsmith.com>

Subject: DRAFT PH Oversight Splits Sampling QAPP

Importance: High

Sean and Davis.

Attached is a draft QAPP for EPA review that covers the split sampling we would conduct during our oversight of the Pre-RD Group s sampling program.

Please note that the split sampling per our agreed upon work assignment scope is limited to 30 split samples. This oversight split sample number in our Work Assignment was developed well before we knew the extent of the 1000+ samples for various media being collected by the Pre-RD Group. As a result, the splits will need to be spread fairly thin over the course of media being sampled, or selected to be concentrated on one or two media, pending EPA direction. Either approach, the limited number will still provide discrete checks on analytical results comparability and RPD evaluation, but it s not enough split samples to perform more rigorous statistical evaluation of the analytical data. We would need additional funding, if more split samples are desired to allow for more rigorous QA/QC of the Pre-RD Group s analytical results

Mary Lou Fox, our analytical expert, was a lead author of this Split Sampling QAPP and had several conversations with Jennifer Crawford at EPA. We ve included a comment in this draft that highlights Jennifer Crawford s suggestion to have a conference call to discuss specific lab support to meet objectives under the project specifications. Our current proposal is to select potentially high concentrations areas for split samples to avoid the reporting limitations at MEL for certain chemicals as noted by Jennifer.

As far as timing to get this reviewed/approved and finalized:

Looking at the Pre-RD Group s current schedule and assuming we wouldn't collect a split on the first round of surface water samples (there are 2 other rounds planned for surface water), we have about 4 weeks before surface sediment sampling begins on April 5th, upon which we II probably want to collect some splits of the surface sediment samples.

Let me know if you have any questions. Scott

Scott Coffey, L.Hg. Hydrogeologist

CDM Smith | consulting engineering construction operations

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